

BENJAMIN FRANKLIN

Scientist & Inventor

A C T I V I T Y B O O K



ANIMATED
HERO
CLASSICS™



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From the "Animated Hero Classics™"

BENJAMIN FRANKLIN



Scientist & Inventor

Total Learning Resource and Activity Book

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TEACHER GUIDE

This Total Learning Resource and Activity Book is used to supplement the "Benjamin Franklin" video from the "Animated Hero Classics™" series from Living History Productions, Inc.

The purpose of this book is to help elementary age students learn and retain the story of "Benjamin Franklin" in a fun, yet educational way. The activities are designed to integrate the video across the curriculum and may be completed individually or with the whole class. There are questions and group activities at the end.

Although most of the answers to each activity can be found by watching the "Benjamin Franklin" video, there are activities that give additional facts about Franklin's life in colonial America. There is an answer key in the back of the book for your convenience.

Living History Productions hopes that this activity book will make your investment in the "Animated Hero Classics™" even more valuable as you use it to help your students develop a greater love for history and learning.

LEVEL OF DIFFICULTY

The activities in this book are not restricted to any one grade level. They are designed for three levels of difficulty from the perspective of eight to ten-year-olds. An activity rated at one symbol will be easy for this age group. A two-symbol activity will match their achievement level while they will find the three-symbol activity more difficult.



easy



intermediate



difficult

CURRICULUM RELATED

These educational activities are related interdisciplinarily to social studies (geography, history, culture), language arts (spelling, creative writing, grammar, literature), math (simple equations), and science. There are also activities for character development, video awareness, problem solving, music, and art. The subject codes below are for your convenience.

a

Art

cd

Character
Development

c

Culture

g

Geography

h

History

la

Language
Arts

m

Math

mu

Music

ps

Problem
Solving

sc

Science

sp

Spelling

va

Video
Awareness

w

Writing

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REFERENCES

for your
CONVENIENCE

For those wishing to further study the life of Benjamin Franklin, some of the references used in researching the *Benjamin Franklin* video and *Total Learning Resource and Activity Book* are listed below, along with other titles that may be of interest:

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Epstein, Sam, *The First Book of Electricity*, F. Watts, New York, 1988.

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Fritz, Jean, *What's the Big Idea, Ben Franklin?*, Coward, McCann and Geoghegan, 1976.

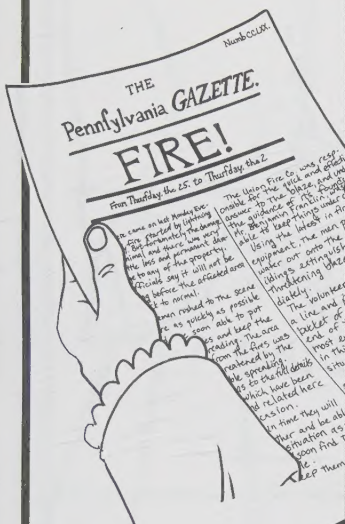
Meltzer, Milton, *Benjamin Franklin: The New American*, F. Watts, New York, 1988.

Quakenbush, Robert M., *Benjamin Franklin and His Friends*, Pippin Press, New York, 1991.

Stein, R. Conrad, *Benjamin Franklin: Inventor, Statesman, and Patriot*, Rand McNally, Chicago, 1972.

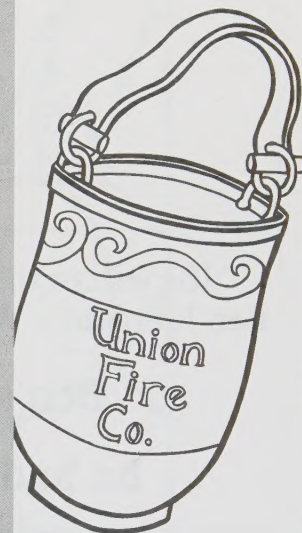
BEN

Ben Franklin was much more than a scientist. The list of his occupations is amazing. Find your way through the maze below and you will be taking the first step toward finding four of Ben's other occupations. There is only one correct path through the maze.



END HERE

START HERE



When you have marked the path through the maze, follow along the path again, marking off every other letter. Start with the “X” under the arrow. The letters remaining will spell out four of Ben’s other occupations. Write them in the spaces below:

1. _____

3. _____

2. _____

4. _____

DID YOU SEE IT?

Read the list of people and things below. If you saw them or if they were mentioned in the Ben Franklin video, circle the letter in the Yes column. If they were not, circle the letter in the No column.

	<u>Yes</u>	<u>No</u>
1. Declaration of Independence	L	W
2. Kite	I	Q
3. Deborah	S	U
4. Thomas Jefferson	R	D
5. Electricity	O	B
6. William	M	L

The letters you have circled will spell out an important character quality of Ben Franklin's. Write the letters in their correct order in the spaces below.

Ben's inventions and experiments showed that
he had much _____ .

FOR THE EXPERTS:

What does the above word mean? _____

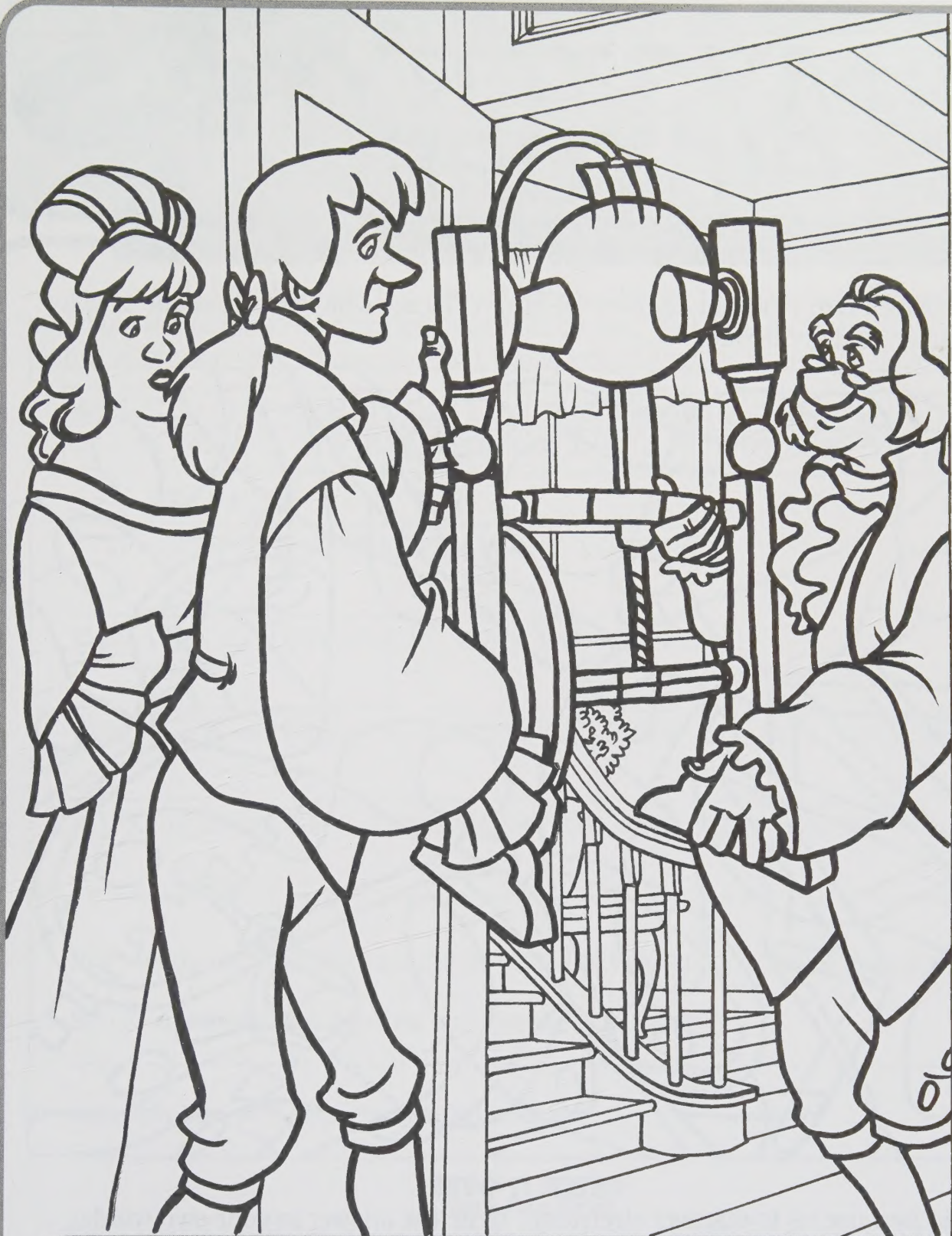
List two people that you think have this quality. Why do you think they have it?

1. _____

2. _____

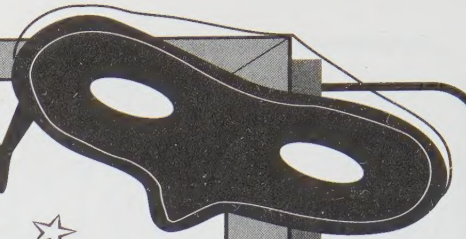
"Well done is better than well said." Benjamin Franklin





**Ben brings his new
electro-magnetic generator home.**

MYSTERY PICTURE



We helped Ben Franklin discover electricity. To see what we are, shade or color in the areas that are dotted.



THINK IT OVER

How did Ben use us to discover electricity? Write the answer in your own words:

MIX 'N' MATCH CODE

In the code box there are two rows of letters. Decode the sentences below by matching the top row of letters with the bottom row. Write the new letters in the blanks above the code letters. The first two words of line one have been done for you.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Z	Y	X	W	V	U	T	S	R	Q	P	O	N	M	L	K	J	I	H	G	F	E	D	C	B	A

- BEN FRANKLIN _____
YVM UIZMPORM WRHXLEVIVW VOVXGIRXRGB
- _____ _____ _____ _____ _____ _____ _____
YVM DZH Z HXRVMGRHG ZMW ZM RMEVMGLI
- _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
YVM FHVW Z OVBWVM QZI ZMW Z PRGV ULI SRH VCKVIRNVMGH
- _____ _____ _____ _____ _____ _____ _____ _____
VOVXGIRXRGB ZMW ORTSGMRMT ZIV GSV HZNV GSRMT

Now, using the code box as a guide, write the following sentences in code:

A. Ben Franklin became America's ambassador to France.

B. Ben Franklin was respected for his wisdom.

Just For Fun!

Now write your own sentences in code about Ben Franklin using the code box to help you. Be creative and have fun!

The HIDDEN WORDS

To find the two words hidden in this puzzle, color in the odd-numbered spaces. Leave all the even-numbered spaces blank. When you have found the words, write them in the spaces below.

2	8	4	6	8	2	6	4	4	2	6	8	4	6	2	8	8
2	4	5	6	7	9	2	4	5	2	8	3	7	5	1	8	9
6	9	7	2	4	6	1	7	8	6	9	4	2	5	1	8	6
4	3	5	4	6	8	9	2	4	1	6	8	4	3	5	8	6
8	7	2	9	1	4	6	3	8	2	6	5	7	9	8	6	2
4	6	3	8	5	2	7	9	4	6	8	3	2	4	5	7	9
4	2	6	8	2	4	6	8	2	4	6	8	2	4	8	2	4
8	2	4	7	6	9	1	4	6	3	1	5	7	6	8	9	1
6	4	8	5	7	2	4	6	8	9	8	2	4	6	1	7	1
2	4	3	5	6	8	2	7	9	1	4	6	8	3	2	4	6
4	6	7	4	1	3	4	6	5	8	2	4	6	8	2	7	4
8	2	4	5	8	7	2	3	1	3	4	6	8	1	2	4	6
4	6	8	2	4	6	8	2	6	8	6	2	4	6	8	2	4

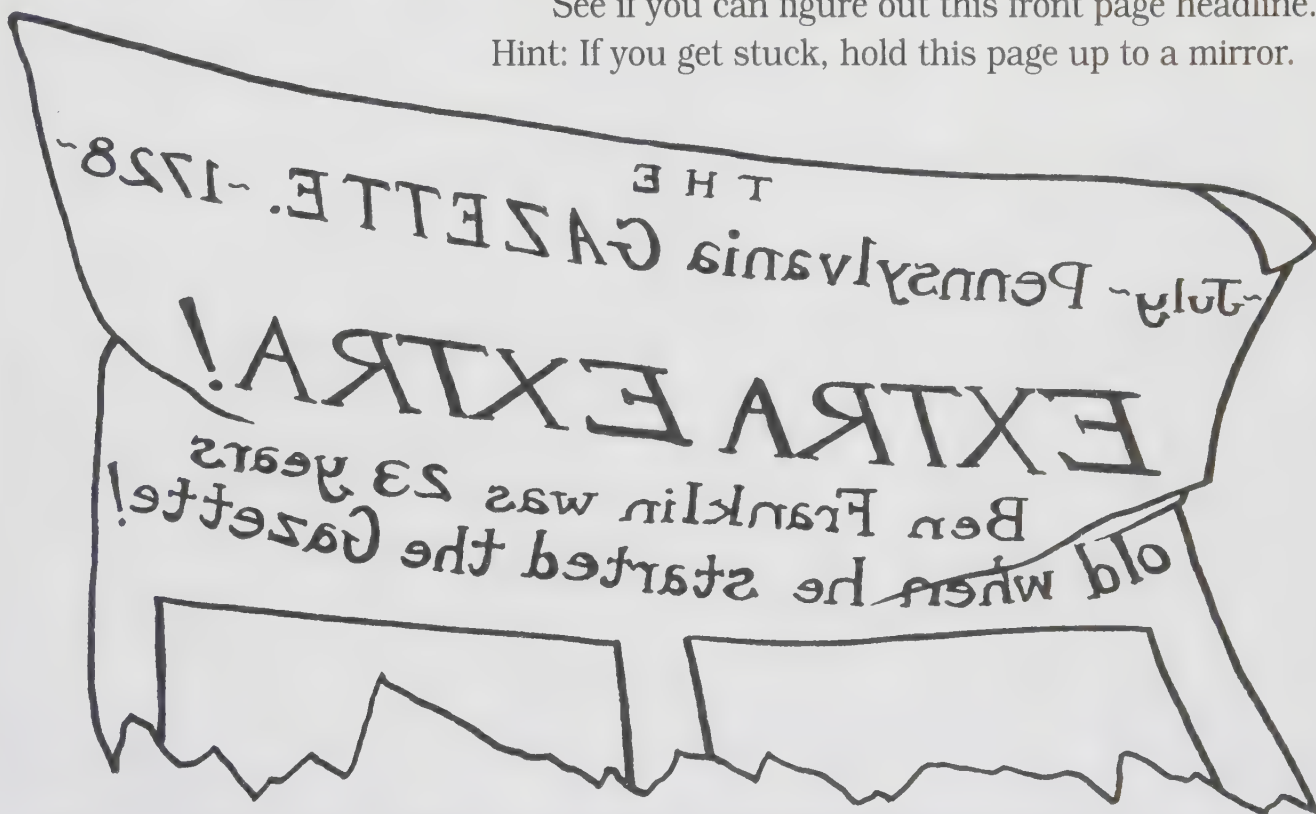
Ben Franklin used both of these in his electrical experiments:

1. _____ 2. _____

HEADLINES

Five years after Ben Franklin arrived in Philadelphia, he had his own newspaper, "The Pennsylvania Gazette." In Franklin's day, printers formed the words with metal letters called type. When all the words were formed, the type was inked and a sheet of paper was pressed against it. The printed pages were easy to read, but if you looked at the set type and not the paper, everything read backwards.

See if you can figure out this front page headline.
Hint: If you get stuck, hold this page up to a mirror.



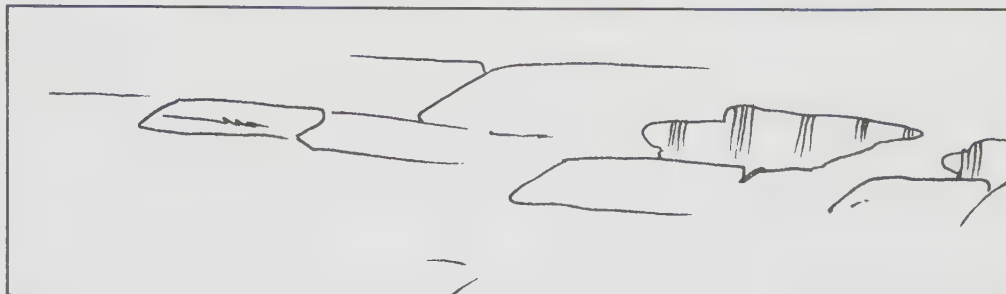
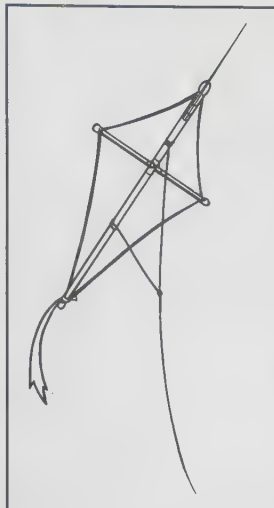
Now, in the spaces below, write your own headline in reverse!

"Be always ashamed to catch thyself idle." Benjamin Franklin

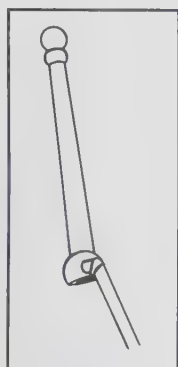


Lightning strikes the clock tower and sets it on fire.

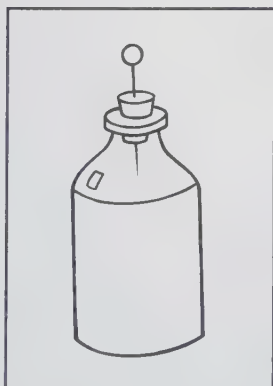
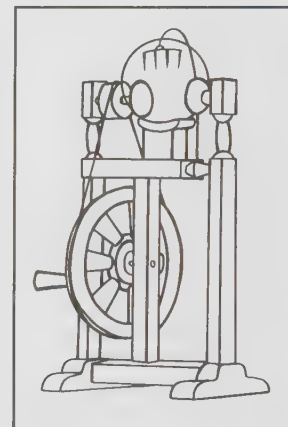
WORD SEARCH



Find these hidden words and circle them in the puzzle below.
Hint: Some words read across and some read up and down.



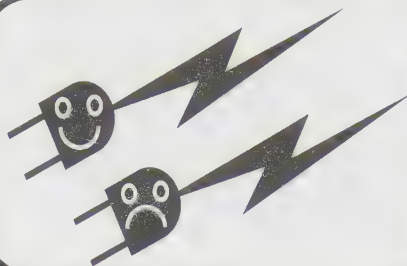
FIRE GENERATOR HOUSE
KEY KITE LEYDEN JAR
LIGHTNING RAIN THUNDER



L	M	K	I	T	E	D	R	C	A	F
P	L	E	Y	D	E	N	J	A	R	I
Q	D	Y	M	H	O	U	S	E	A	R
G	E	N	E	R	A	T	O	R	I	E
X	K	L	I	G	H	T	N	I	N	G
L	T	H	U	N	D	E	R	X	D	P

"Haste Makes Waste." Benjamin Franklin





ELECTRICITY, FRIEND AND FOE

Ben Franklin found that many of his experiments with electricity were dangerous. There are many places today where we have electricity that are not safe to play around.

Read the sentences below. Then circle the letter in front of each sentence that describes dangerous electricity. Then write the circled letters in order in the blank spaces to complete the sentence below the puzzle. These letters will spell out a “super-charged” word.

- S** Sticking your finger into an electrical outlet.
- B** Flying a kite at the beach.
- H** Touching overhead telephone or electric wires.
- E** Riding your bicycle through the sprinklers.
- O** Climbing an electric fence.
- Y** Pulling a plug out of an outlet.
- C** Taking the nuts and bolts out of the television and touching the wires inside.
- D** Turning on the oven.
- K** Taking a radio or hair dryer into a bathtub filled with water.

If I do the things I circled, I could get a big _____ !

BEN'S HELPER



Follow the dots to find the machine Ben Franklin used to do electrical experiments with.

What is the name of Ben's machine? _____

Find The Spelling Mistakes...

Find and circle the spelling mistakes in each sentence below. Then write the words correctly in the spaces on the right.

1. Benjamin Franklin was a syentist. _____
2. He did experiments with elektrisity. _____
3. Ben was also a firemun and postmaster. _____
4. Franklin made many invenshuns. _____
5. Ben enjoyed helping peopel. _____
6. Lightning rods help protekt buildings from fire. _____

Now, using the correct spelling of the words above, write your own sentences about Ben Franklin in the blanks below. Be sure to use at least one of the spelling words in each sentence.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

"There are lazy minds as well as lazy bodies." Benjamin Franklin





Firemen rush to put out the fire!

WORD SEARCH

Find and circle all of the words that are hidden in the puzzle below. Words are down, across, diagonal, and backwards. You will find a list of these words at the bottom of the page.

S A C L C D B R V T Q Z U T S R H G
 C O L O N I E S F I R D L E E B G G
 I K F K L I N V E N T O R D Q R D E
 E S I C H E F T T V L F N A B D Y N
 N S Q T R F R N D E M U N O R P T E
 T S L F E A A E Q N H R D L A D I R
 I M L C G I N M W T I J O S I Q C A
 S J K L M H K I I I F R R E N B I T
 T S T L Q P L R R O D L G T S R R O
 B D C H I L I E J N S M N K A L T R
 M E R S I E N P M S R N I J M O C P
 T B A A P D Q X E O U F N D E N E F
 L O M R W A S E T D T E T S R O L G
 D R D A B L R S J I D G H R I H E N
 G A Y U V I T K K Y X H G I C J P O
 H H L E X H Y Z E M Y W I Q A K M E
 O F M Z K P C L L A B V L C R P Q L

AMERICA
 BEN FRANKLIN
 COLONIES
 DEBORAH

EXPERIMENT
 ELECTRICITY
 GENERATOR
 INVENTIONS

INVENTOR
 KEY
 KITE
 LEYDEN JAR

LIGHTNING ROD
 PHILADELPHIA
 RAIN
 SCIENTIST

SPARK
 STORM
 THUNDER
 WILLIAM





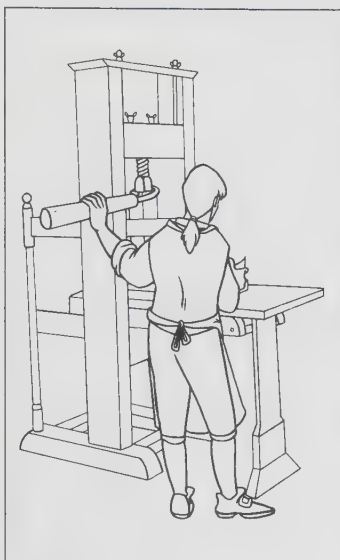
TIME TO RHYME

Now, it is your turn to think of a rhyme.

There's nothing much to it, just give yourself time.

Look for the UNDERLINED words in this game.

Then find other words that sound the same.



Ben's first job was a PRINTER

In the summer and in _____.

He got the paper and the INK.

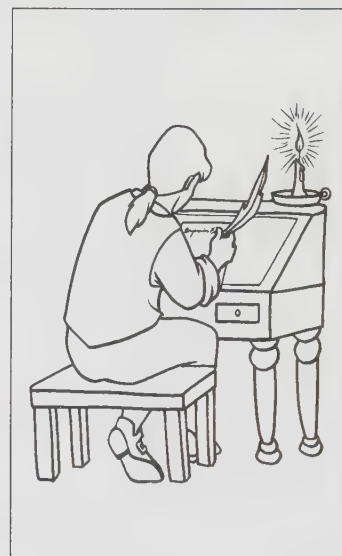
And wrote stories that made people _____.

In secret, Ben would WRITE.

He'd stay up half the _____.

To Ben, this was a GAME.

And he'd sign with another _____.



When brother James found OUT

He gave an angry _____.

So young Ben ran AWAY

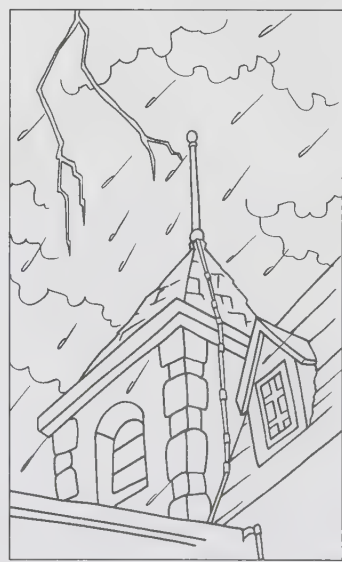
In Philadelphia to _____.

In Philadelphia, Ben would start his LIFE.

Print his paper, meet his _____.

Though his experiments seemed ODD

He did invent a stove and the lightning _____.



"Lost time is never found again." Benjamin Franklin



THANKS, BEN!

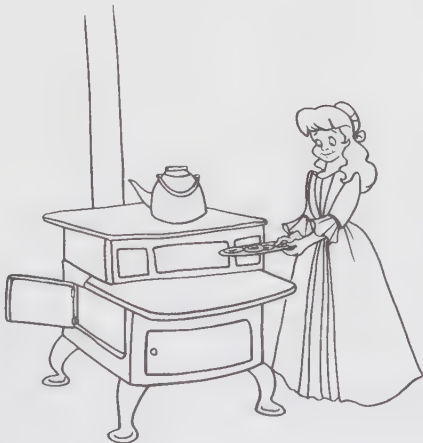
Ben Franklin invented many wonderful things that have made our lives easier. To find out the names of four of his great inventions, unscramble the letters next to each picture.



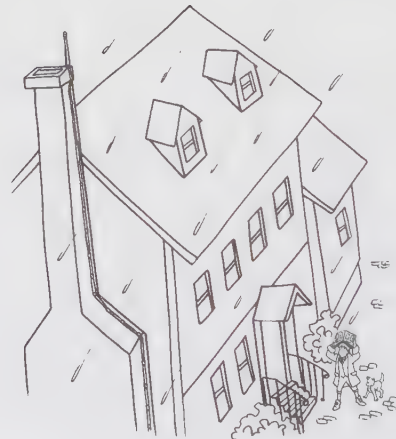
Y R L B A R I



T P S O F I O C E F



T V O E S



I N N G L G I H T O D R

**"If you should reap praise, you must sow the seeds:
gentle words and useful deeds."** *Benjamin Franklin*

WORDS THAT DESCRIBE

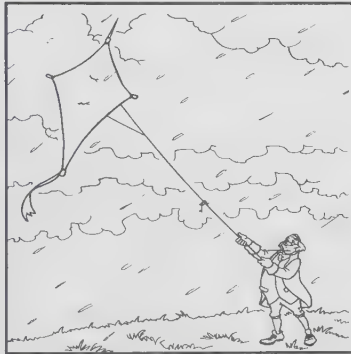
The three pictures on this page are from the "Benjamin Franklin" video. Write two sentences about each picture using the *describing* words below. Do not use the same word more than once. The first sentence is done for you.

careful dangerous surprised stormy helpful excited thoughtful quickly careless



1a. *Ben was surprised by the shock because he did not expect it.*

1b. _____



2a. _____

2b. _____



3a. _____

3b. _____

"No gains without pains." Benjamin Franklin



Ben gets a brilliant idea.

INVENTOR'S CORNER

Ben looked at everyday things in a special way and created new ways to use them. How would you like to be an inventor like Ben Franklin?

Look at the list in the Inventor's Box below. These are things you use every day. Be creative! Make an invention that uses some or all of these things. It could be something that will help you with your homework or your chores at home. Or it could be a great new scientific discovery!

Inventor's Box

MILK CARTON
HOLE PUNCH
3" X 5" CARDS
COLORED PENS
RUBBER BANDS
VELCRO STRIPS

LARGE PAPER CUPS
CONSTRUCTION PAPER
RUBBER CEMENT
SMALL, STURDY BOARD
YARN OR STRING

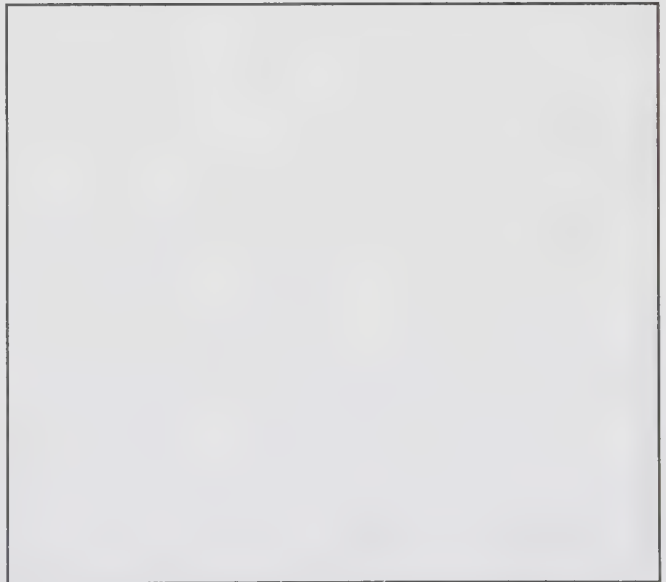
SHOE BOX
TAPE
GLUE
PAPER CLIPS
CRAYONS
SCISSORS

You can use as few or as many of these things as you want. Be sure to give your invention a name and tell how it helps you.

THE NAME OF MY INVENTION IS: _____

MY INVENTION HELPS ME TO:

MY INVENTION LOOKS LIKE THIS:

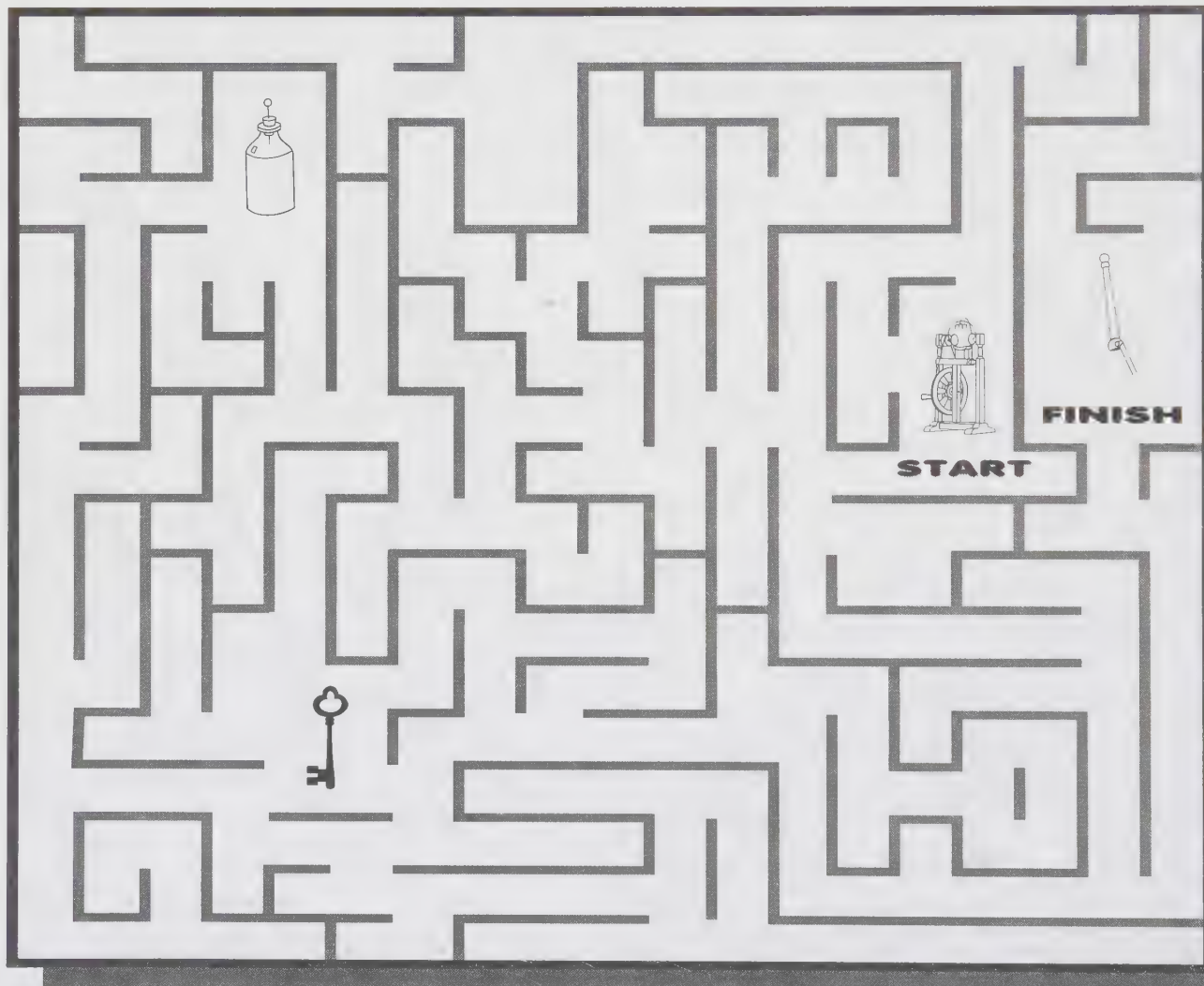


(Draw a picture to show how it works!)

BEN'S WONDERFUL DISCOVERY

Ben Franklin took many steps to learn more about electricity. He used an electro-magnetic generator, a leyden jar, a kite and a key for his experiments. He learned that lightning and electricity were the same thing. This discovery helped him to invent the lightning rod.

The maze below shows each step Ben took in his discovery of electricity. Help him get from the generator, past the leyden jar and the key, to the lightning rod. There is only one correct path.



WHAT'S IN A NAME

In the word puzzle below, you will find that each letter of Franklin's name is also the first letter of another word. To find these words, read the statements to the left of each word. Each statement will give you the clues you will need to find the words. The first word has been done for you.

1. When lightning hits a building or tree,
_____ start.

F I R E S

2. Ben became a wise man because he
_____ many books.

R _ _ _

3. The thirteen colonies became the United
States of _____.

A _ _ _ _ _

4. While most people were sleeping, Ben did a
lot of work late at _____.

N _ _ _ _

5. Ben flew this in a storm and discovered
electricity.

K _ _ _

6. A burst of electricity from the sky is called
_____.

L _ _ _ _ _

7. The lightning rod, the Franklin stove, and
bifocals are some of Ben's _____.

I _ _ _ _ _

8. Ben is a founding father of our country.
Another word for country is _____.

N _ _ _ _

"Better slip with foot than tongue." Benjamin Franklin



face fill

Fill in the expressions of Ben's face to show how he is feeling.

When Ben saw Dr. Spencer's magic show, he was surprised. Draw his surprised look.



When Ben's experiment didn't work, he was disappointed. Draw his disappointed look.

When Governor Keith gave Ben the Royal Society medal, he was very happy. Draw his happy look.



When the dog took Ben's kite string, Ben was angry. Draw his angry look.

HOW ABOUT YOU?

What surprises you? Draw your face here with a surprised look; then write your answer below.



What disappoints you? Draw your face here with a disappointed look; then write your answer below.



What makes you happy? Draw your face here with a happy look; then write your answer below.

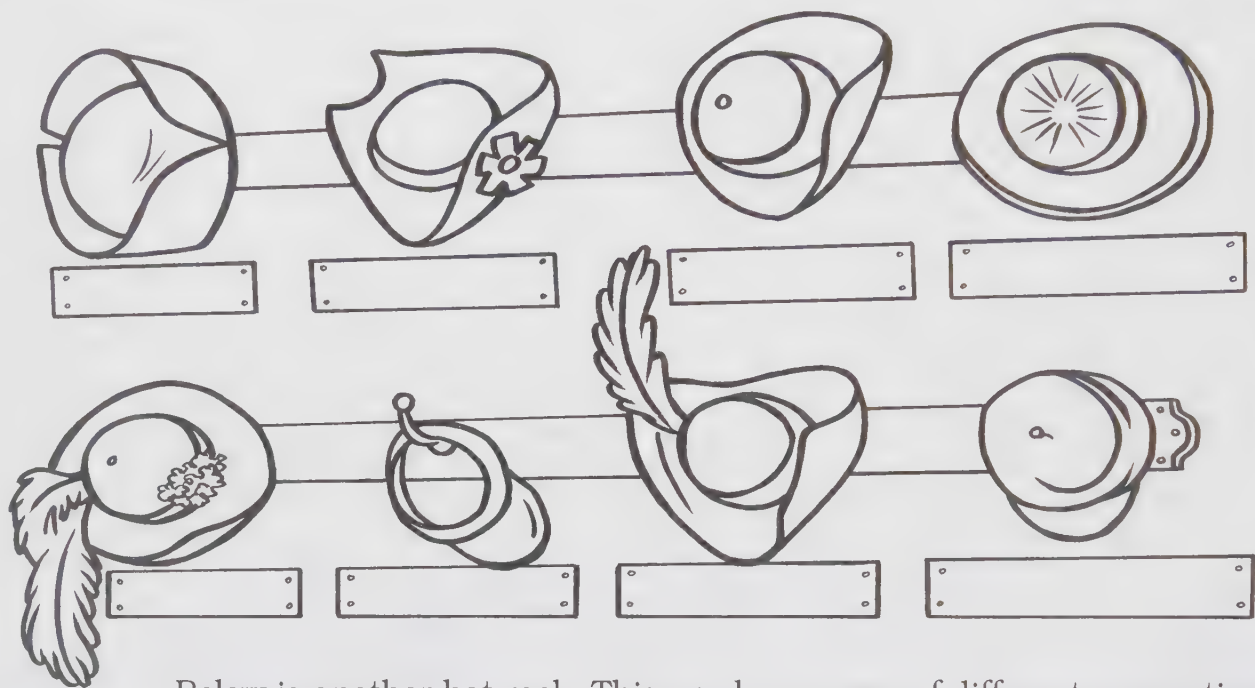




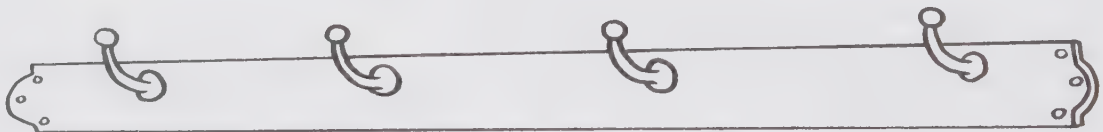
Ben uses a kite and a key to prove lightning and electricity are the same.

BEN'S HAT COLLECTION

Ben had many occupations. In the video, he wore a special hat for each one. All of Ben's hats are on the hat rack below, but the names for each hat are missing. Write the correct name of each occupation in the blank under each hat (NOTE: One hat belongs to his wife Deborah. Write her name under that hat.)



Below is another hat rack. This one has names of different occupations, but all of the hats are missing. Draw what you think the hats would look like for each occupation.



"A good example is the best sermon." Benjamin Franklin





Ben Franklin started his own print shop when he was just twenty-three years old. Like other shopkeepers of his time, he hung a sign outside his shop. This sign told who he was and what business he was in. It probably looked similar to the big sign above.

How many words can you make using the letters in the sign? (NOTE: You cannot use any letter more times than it appears in the phrase. For example: no more than one B, two S's, one F, etc.)

3 Letter Words - 1 point each ____ words x 1 = ____ points	4 Letter Words - 2 points each ____ words x 2 = ____ points
5 Letter Words - 3 points each ____ words x 3 = ____ points	6 Letter Words - 4 points each ____ words x 4 = ____ points

TOTAL POINTS ____:

5-15 = Junior • 16-30 = Intermediate • 31-45 = Advanced • 46-60 points = Ace
 61-85 = Champ • 86-100 = Super Champ • 101 and up = Out of Sight!!

One of Ben Franklin's most important scientific discoveries was electricity. There are two kinds of electricity: *current electricity* which moves through wires and bulbs and around a circuit, and *static electricity* which stays still.

You can make static electricity yourself. Here are two simple experiments you can do at home or school. Follow each step exactly and write what you discover in the blank spaces below each question.

Experiment One: THE BALLOON BOUNCE

STEP 1: Blow up two balloons and attach a long piece of string to them.

STEP 2: Rub the balloons on your sweater. What happens when you lift them by the string? _____

STEP 3: Put a stiff sheet of paper between the balloons. What happens? _____

STEP 4: Take away the paper. What happens to the balloons? _____

Experiment Two: THE ELECTRIC BALLOON

STEP 1: Take one of the balloons from experiment one. Rub the balloon against something fuzzy. A sweater or even your hair will work.

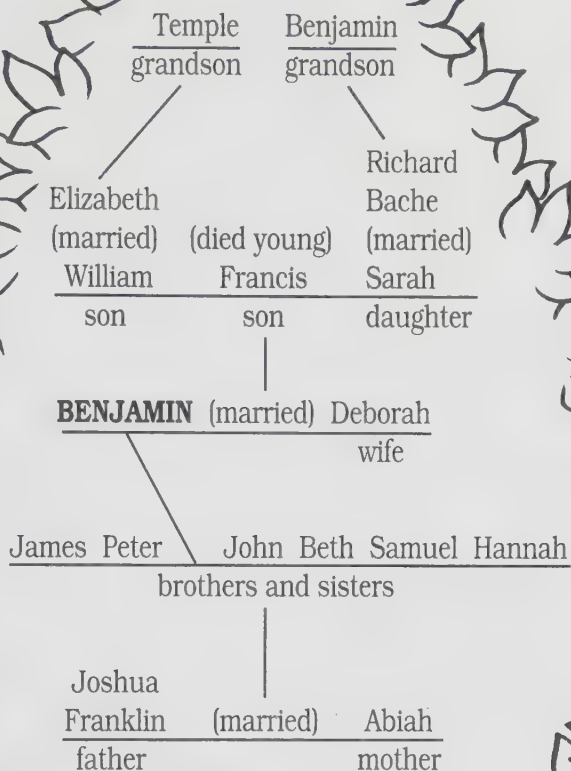
STEP 2: Place the balloon against something flat, like a wall or a door. What happens? _____

Why do you think this happened? _____

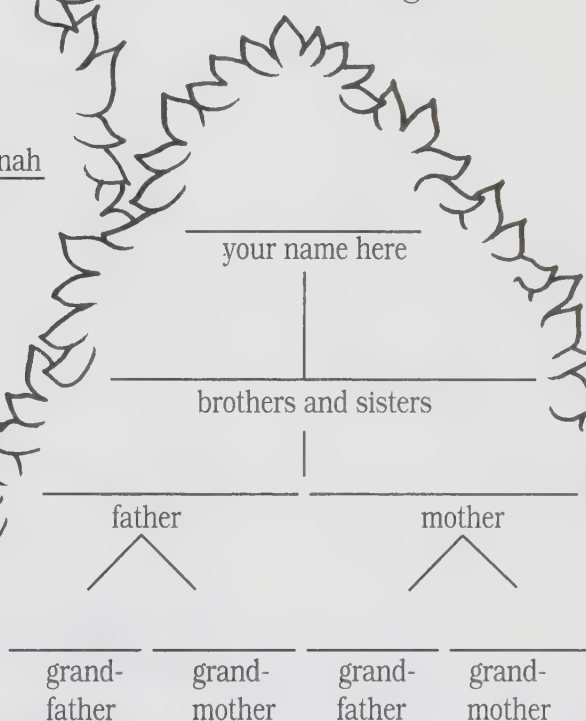
FRANKLIN'S Family Tree

A family tree is a diagram of the members of a family, past and present. The oldest members are at the bottom (the roots). The youngest are above (the branches).

In the first tree, find Benjamin, his children and grandchildren.



Here is a tree waiting to be your family tree. The top is easy for you. You might need your parents' help at the bottom of the tree.





Ben's discovery creates quite a stir.

WORD SCRAMBLE

All of the scrambled words below are people or things found in the "Ben Franklin" video. Unscramble the letters and spell each word correctly in the blank spaces. The first one has been done for you.

1. EITK KITE
2. EYLTEICCTIR _____
3. STCSHIEITN _____
4. IRNOVTNE _____
5. TRHEUDN _____
6. LGINGIHNT _____
7. IFER _____
8. ISNNOVOEINT _____
9. SKPRA _____
10. GREONTEAR _____

BONUS WORK

Write your own sentences about Ben Franklin's discovery of electricity using the words you unscrambled from the list above. Do not use more than two of the words in each sentence. Write the sentences in the blanks below.

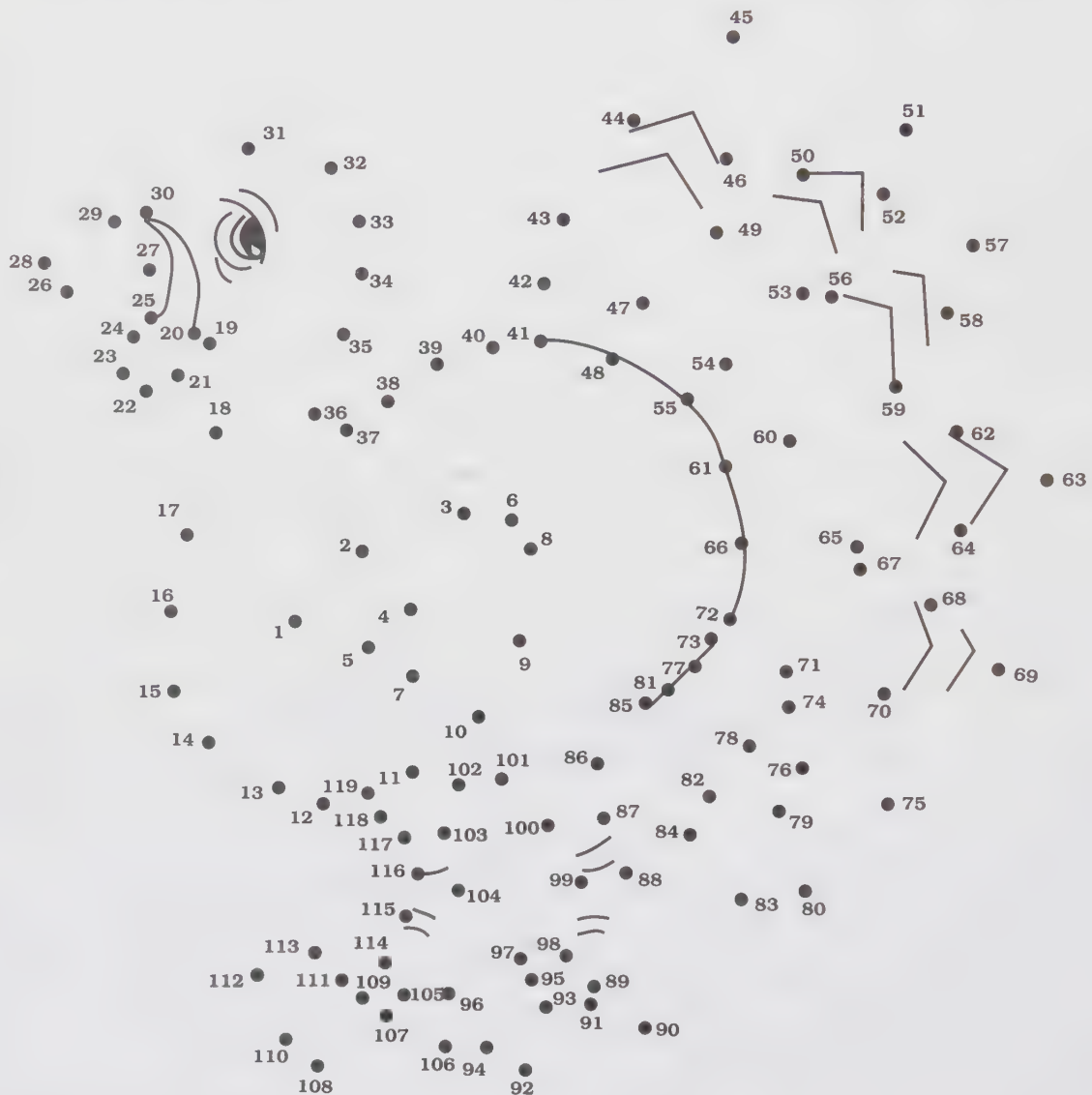
"Early to bed, early to rise, makes a man healthy, wealthy, and wise." Benjamin Franklin





NOT OUR NATIONAL BIRD

Ben Franklin was on the committee that selected our national bird. The bird Franklin suggested was not chosen. Connect the dots below to see the bird Ben wanted as our national bird. Then write its name in the blank space below.



"The _____ is a shrewd and cunning bird." Benjamin Franklin



"Electricity goes through the wire to the ground," says Ben.

MATCH-UPS

Match each person or thing in Column A with their correct description in Column B. Connect them with a line. The first one is done for you.

COLUMN A

1. Ben Franklin
2. Dr. Spencer
3. Lightning Rod
4. Justice Hill
5. Mr. Miller
6. Deborah
7. Generator
8. Kite
9. William
10. Governor Keith

COLUMN B

- A. I am Ben's son.
- B. I am a superstitious farmer.
- C. I am Ben's wife.
- D. I am a scientist and an inventor.
- E. I flew in the sky and helped Ben discover electricity.
- F. I thought lightning was a sign of God's anger.
- G. I ran an electric side show.
- H. I awarded Ben a special medal.
- I. I keep buildings from being struck by lightning.
- J. I am a machine Ben used for electrical experiments.

"Keep conscience clear, then never fear." Benjamin Franklin



Thanks to Ben, homes are safe with a lightning rod.

fun *with* Math *and* Words

Have some fun with math and words. First, do all of these addition problems:

$$\begin{array}{r} 2 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ +10 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +2 \\ \hline \end{array}$$

W

E

L

D

O

N

I

$$\begin{array}{r} 4 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ +5 \\ \hline \end{array}$$

S

T

C

G

R

A

K

The sums of your addition are now code numbers for the letters below them. Now write each letter in the spaces above the code numbers and you will find two sayings from Ben Franklin's *Poor Richard's Almanack*.

1. $\begin{array}{cccccccccccccccc} _ & _ & _ & _ & _ & _ & _ & _ & _ & _ & _ & _ & _ & _ & _ & _ \\ 4 & 20 & 9 & 9 & 11 & 10 & 5 & 20 & 6 & 13 & 15 & 4 & 6 & 12 & 20 & \end{array}$

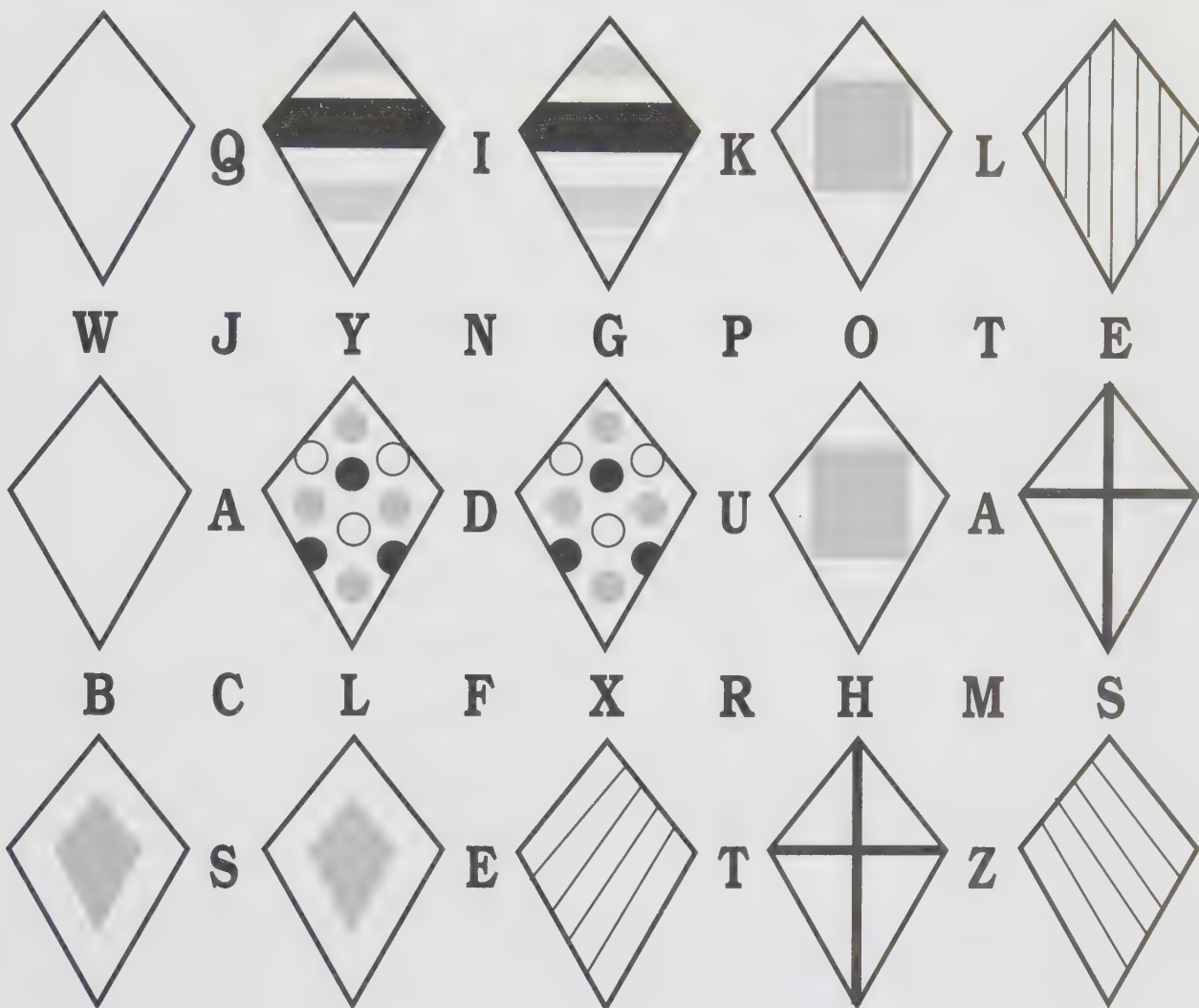
$\begin{array}{cccc} _ & _ & _ & _ \\ 11 & 10 & 5 & 20 \end{array}$

2. $\begin{array}{cccccccccccc} _ & _ & _ & _ & _ & _ & _ & _ & _ & _ & _ & _ \\ 8 & 7 & 20 & 14 & 15 & 15 & 14 & 9 & 16 & 20 & 7 & 13 \end{array}$

$\begin{array}{cccccccc} _ & _ & _ & _ & _ & _ & _ & _ \\ 9 & 6 & 15 & 15 & 9 & 20 & 11 & 10 & 20 & 7 & 13 \end{array}$

KITES KITES KITES

Hidden in the puzzle below is a word that shows a special character quality that Ben Franklin had. To find the word, look at the kites below. Draw a line from one kite to the one that matches it. As you connect the matching kites, your lines will cross a letter.



Now write the letters on these blanks: _____

Unscramble the letters to find the special word and write it on the blanks below. When you complete this sentence you will find what Ben Franklin had to say about this character quality:

"He's a foolish man that cannot conceal his _____." Benjamin Franklin

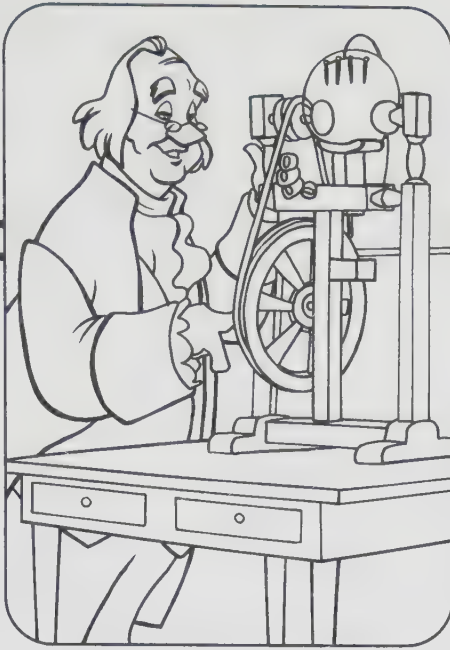


I'm a letter in **WILL**, but not in **BILL**:
 I'm a letter in **BIN**, but not in **BAN**:
 I'm a letter in **SAT**, but not in **BAT**:
 I'm a letter in **DEAR**, but not in **WEAR**:
 I'm a letter in **WON**, but not in **WIN**:
 I'm a letter in **MAT**, but not in **BAT**:
 I'm a letter in **PAT**, but not in **CAT**:
 I'm a letter in **RAN**, but not in **RUN**:
 I'm a letter in **TIN**, but not in **BIN**:
 I'm a letter in **LID**, but not in **LAD**:
 I'm a letter in **RED**, but not in **ROD**:
 I'm a letter in **LINE**, but not in **LIKE**:
 I'm a letter in **CAR**, but not in **WAR**:
 I'm a letter in **BED**, but not in **BID**:

[illegible]

1. _____ is important because: _____

2. _____ is important because: _____



Benjamin Franklin QUESTIONS

1. What did Dr. Spencer do for a living?
2. What interested Ben in learning more about electricity?
3. Which machine did Ben purchase from Dr. Spencer?
4. What did this machine do?
5. What was the name of Ben's wife?
6. What was the name of Ben's son?
7. What were three of Ben's occupations?
8. How did Ben's fire department put out fires?
9. What did Mr. Miller wear around his neck?
10. Why did he wear it?
11. What did Justice Hill believe lightning was?
12. Why did Justice Hill blame Mr. Miller for all of the fires in the town?
13. Why did Ben fly his kite in the thunderstorm?
14. What did Ben invent to protect buildings from fire during storms?
15. What did Governor Keith give Ben as a special reward?

"What's given shines; what's received is rusty." *Benjamin Franklin*



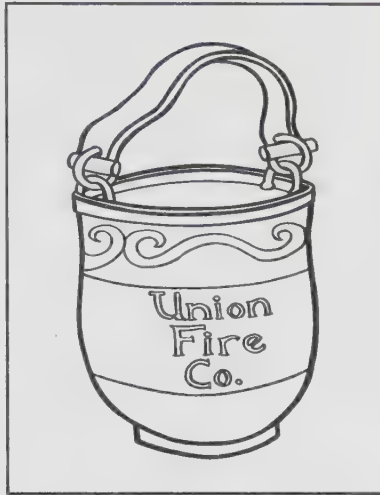
Governor Keith awards Ben a special medal.



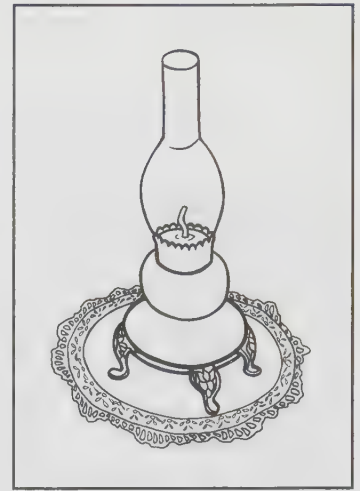
THINGS TO DO

NOTE TO THE TEACHER: These are activities for a group to discuss and think about.

1. Discuss the differences between Ben's fire department and fire departments today. Group members can act out what it was like to put out a fire in Ben's time.



2. There are many things in your home that use electricity that we would not have if Ben had not made his discovery. Discuss what life would be like for you and your family if we didn't have electricity.

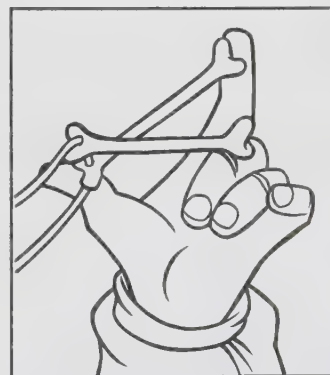


3. Ben did several experiments before he discovered electricity. He knew these experiments were important, so he did not give up. Discuss areas in your life where



you've needed to be persistent. Why do you think persistence is important?

4. Many people in Ben Franklin's time were very superstitious, like Mr. Miller in the video. If they didn't understand why things happened,



they would make up their own explanations. How do you think someone from Ben's time would explain some of the modern conveniences

we have today, like television, cars, microwave ovens or computers?

**"Work as if you were to live 100 years.
Pray as if you were to die tomorrow." Benjamin Franklin**



ANSWER KEY

THE AMAZING BEN — PAGE 5

POSTMASTER FIREMAN PRINTER
INVENTOR

DID YOU SEE IT? — PAGE 6

WISDOM

MYSTERY PICTURE — PAGE 8



MIX 'N' MATCH — PAGE 9

1. Ben Franklin discovered electricity.
 2. Ben was a scientist and an inventor.
 3. Ben used a leyden jar and a kite for his experiments.
 4. Electricity and lightning are the same thing.
- A. YVM UIZMPORM YVXZNV ZNVIRXZH
ZNYZHHZWIGL UIZMXV.
- B. YVM UIZMPORM DZH IVHKUXGVW
ULI SRH DRHWN.

THE HIDDEN WORDS — PAGE 10

KITE, KEY

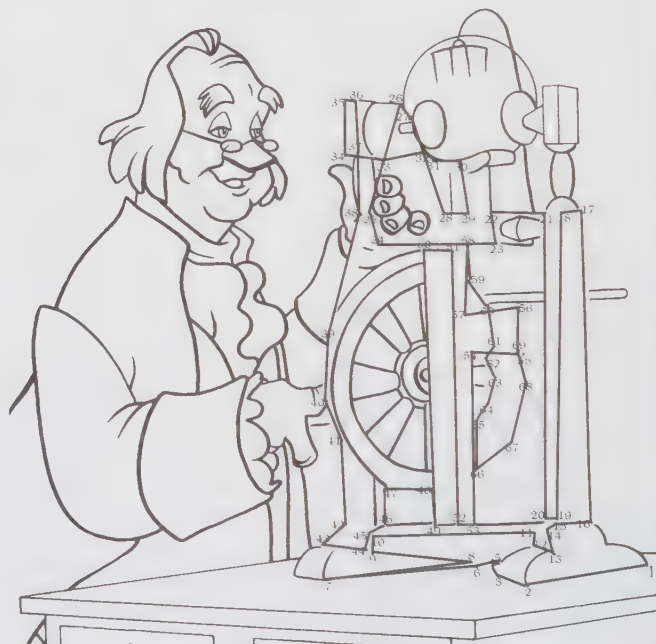
WORD SEARCH — PAGE 13

L	M	K	I	T	E	D	R	C	A	F
P	L	E	Y	D	E	N	J	A	R	I
Q	D	Y	M	H	O	U	S	E	A	R
G	E	N	E	R	A	T	O	R	I	E
X	K	L	I	G	H	T	N	I	N	G
L	T	H	U	N	D	E	R	X	D	P

ELECTRICITY, FRIEND AND FOE — PAGE 14

SHOCK

BEN'S HELPER — PAGE 15

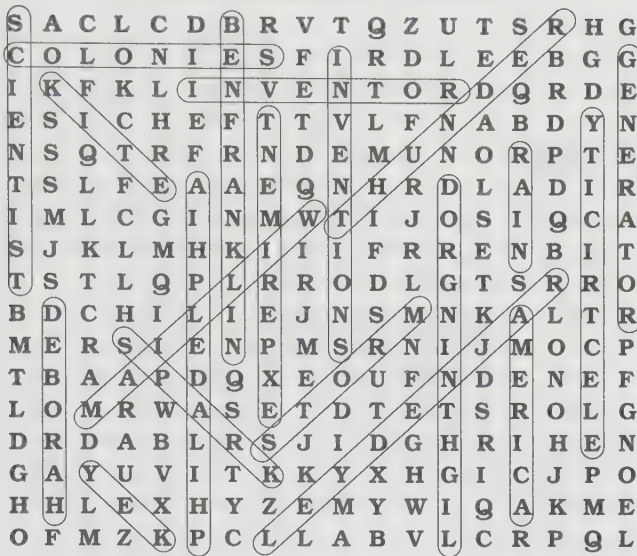


Answer: ELECTRO-MAGNETIC GENERATOR

FIND THE SPELLING MISTAKES — PAGE 16

- | | |
|----------------|---------------|
| 1. SCIENTIST | 4. INVENTIONS |
| 2. ELECTRICITY | 5. PEOPLE |
| 3. FIREMAN | 6. PROTECT |

WORD SEARCH — PAGE 18



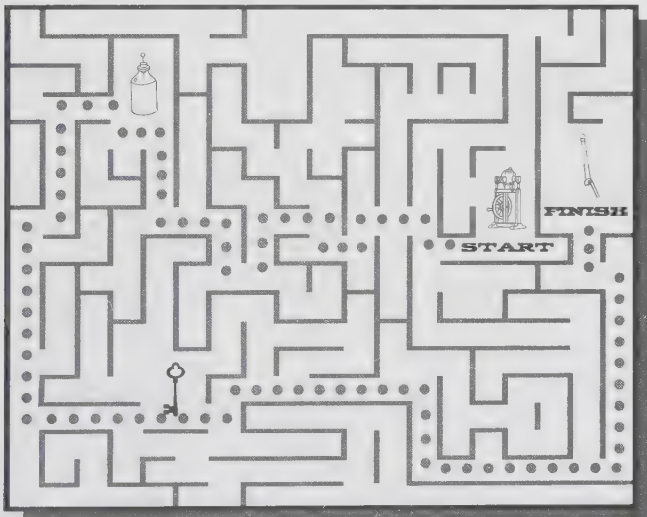
TIME TO RHYME — PAGE 19

WINTER, THINK, NIGHT, NAME,
SHOUT, STAY, WIFE, ROD

THANKS BEN! — PAGE 20

LIBRARY, POST OFFICE,
STOVE, LIGHTNING ROD

BEN'S WONDERFUL DISCOVERY — PAGE 24



WHAT'S IN A NAME? — PAGE 25

FIRES, READ, AMERICA, NIGHT, KITE,
LIGHTNING, INVENTIONS, NATION

BEN'S HAT COLLECTION — PAGE 28

Fireman, Militia, Postmaster, Inventor/Scientist
Deborah, Printer, Citizen, Sanitation Crew Chief

**BEN'S SIZZLING SCIENCE SECTION —
PAGE 30**

EXPERIMENT ONE:

Step 2. The balloons float apart.

Step 3. The balloons stick to the paper.

Step 4. The balloons float apart again.

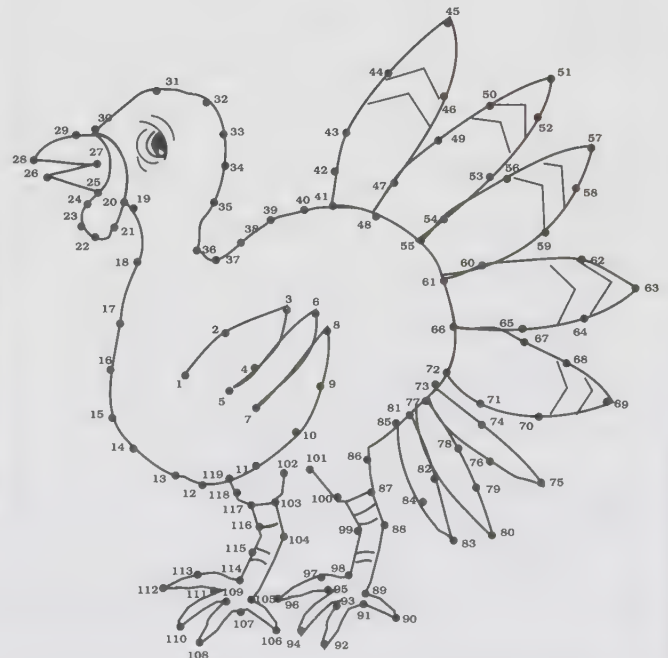
EXPERIMENT TWO:

Step 2. The balloon sticks to it. When
you rubbed the balloon against some-
thing fuzzy, it created static electricity.
This made it stick to the wall or door.

WORD SCRAMBLE — PAGE 33

- | | |
|----------------|---------------|
| 1. KITE | 6. LIGHTNING |
| 2. ELECTRICITY | 7. FIRE |
| 3. SCIENTIST | 8. INVENTIONS |
| 4. INVENTOR | 9. SPARK |
| 5. THUNDER | 10. GENERATOR |

NOT OUR NATIONAL BIRD — PAGE 34



MATCH-UPS — PAGE 36

1. D 2. G 3. I 4. F 5. B 6. C 7. J 8. E 9. A 10. H

FUN WITH MATH AND WORDS — PAGE 38

4=20, 20=E, 9=L, 11=D, 1=O, 5=N, 6=I,
13=S, 15=T, 12=C, 8=G, 7=R, 14=A, 16=K

1. WELL DONE IS TWICE DONE.
2. GREAT TALKERS, LITTLE DOERS.

KITES, KITES, KITES — PAGE 39

Answer: WISDOM

WHAT ARE WE? — PAGE 40

1. WISDOM 2. PATIENCE

BENJAMIN FRANKLIN QUESTIONS — PAGE 41

1. Dr. Spencer ran an electric side show.
2. The electro-magnetic generator interested Ben in learning more about electricity.
3. Ben purchased the electro-magnetic generator.
4. The generator helped create electricity.
5. Ben's wife was Deborah.
6. Ben's son was William.
7. Ben was an inventor, printer, scientist, postmaster, fireman, sanitation crew chief, and in the militia.
8. Ben's fire department used hoses to fill buckets with water, then the firemen passed them along to put out the fire.
9. Mr. Miller wore the necklace to keep away lightning and evil spirits.
11. Justice Hill believed that lightning was a sign of God's anger.
12. Justice Hill believed that Mr. Miller's superstitious ways had brought God's anger on the town.
13. Ben wanted to prove to the townspeople that lightning and electricity were the same thing.
14. Ben invented the lightning rod to protect buildings from fire during storms.
15. Governor Keith gave Ben the Royal Society of London medal as a reward.

Certificate of Achievement

This certifies that _____ has mastered the

BENJAMIN FRANKLIN

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by successfully completing all of the puzzles, games, and activities found herein.

As of this date



Scientist & Inventor

Stephen W. Griffin

Stephen W. Griffin, President

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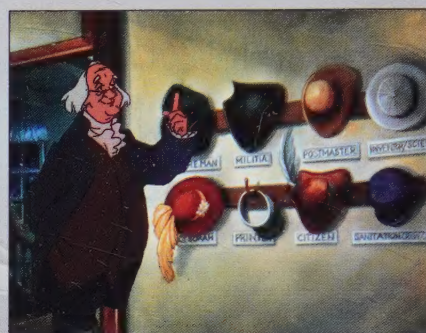
“High into the stormy night, a kite with an iron point bobs in the wind. Suddenly, lightning cuts through the sky and a spark emits from the key attached to a kite string. As

Ben Franklin watched the lightning flash



Benjamin Franklin was also known for the publication *Poor Richards Almanac*.

over Philadelphia, he confirmed with a truly brilliant discovery - a theory that would change the world forever. Now, through this remarkable Activity Book, you can join this peerless scientist and inventor as he relives his experiments with electricity.



Franklin was many things. But above all, he was a patriot and a founding father of America.

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